(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

CORRECTED VERSION

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 17 May 2001 (17.05.2001)

PCT

(10) International Publication Number WO 01/034302 A3

(51) International Patent Classification7: C12Q 1/68

B01L 3/00.

(74) Agent: SILVA, Robin, M.; Flehr, Hohbach Test Albritton & Herbert LLP, Four Embarcadero Center, Suite 3400, San Francisco, CA 94111 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,

AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,

DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,

(21) International Application Number: PCT/US00/42047

(22) International Filing Date:

9 November 2000 (09.11.2000)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

09/438,600

12 November 1999 (12.11.1999) US (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US 09/438,600 (CON) Filed on 12 November 1999 (12.11.1999)

(71) Applicant (for all designated States except US): MO-TOROLA, INC. [US/US]; 1303 East Algonquin Road, Schaumburg, IL 60096 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SHIEH, Chan-Long [US/US]; 6739 East Bar Z Lane, Paradise Valley, AZ 85253 (US). FOLEY, Barbara [US/US]; 14842 South Foxtail Lane, Phoenix, AZ 85048 (US). YU, Huinan [US/US]; 5760 West Park Avenue, Chandler, AZ 85226 (US). Choong, Vi-En [MY/US]; 3380 West Genoa Way, Chandler, AZ 85226 (US).

Published:

with international search report

(88) Date of publication of the international search report: 10 January 2002

(48) Date of publication of this corrected version:

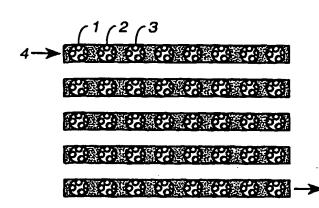
15 August 2002

(15) Information about Correction:

see PCT Gazette No. 33/2002 of 15 August 2002, Section II

[Continued on next page]

(54) Title: BIOCHANNEL ASSAY FOR HYBRIDIZATION WITH BIOMATERIAL



(57) Abstract: The invention relates to microfluidic device with microchannels that have separated regions which have a member of a specific binding pair member such as DNA or RNA bound to porous polymer, beads or structures fabricated into the microchannel. The microchannels of the invention are fabricated from plastic and are operatively associated with a fluid propelling component and detector.

